

Title (en)

LIQUID CRYSTAL ALIGNING AGENT

Title (de)

AUSRICHTUNGSMITTEL FÜR FLÜSSIGKRISTALLE

Title (fr)

AGENT D'ALIGNEMENT POUR CRISTAUX LIQUIDES

Publication

EP 1037092 B1 20100721 (EN)

Application

EP 98956017 A 19981201

Priority

- JP 9805409 W 19981201
- JP 33147197 A 19971202

Abstract (en)

[origin: EP1037092A1] The present invention relates to a treating agent for liquid crystal alignment, which comprises a polyamic acid compound having a reduced viscosity of from 0.05 to 5.0 dl/g (in N-methylpyrrolidone at a temperature of 30 DEG C at a concentration of 0.5 g/dl) and containing repeating units represented by the general formula $\text{Alü: } <\text{CHEM}>$ (wherein R<1> is a tetravalent organic group constituting a tetracarboxylic acid which has an alicyclic structure having from 2 to 5 rings condensed and wherein all the carbonyl groups are directly bonded to the alicyclic structure and said carbonyl groups are not bonded to adjacent carbon atoms in the alicyclic structure, and R<2> is a bivalent organic group constituting a diamine), or a polyimide resin obtained by imidizing said polyamic acid compound, and a liquid crystal alignment film and a liquid crystal device employing it.

IPC 8 full level

C08G 73/10 (2006.01); **G02F 1/1337** (2006.01)

CPC (source: EP KR US)

C08G 73/10 (2013.01 - EP KR US); **C08L 79/08** (2013.01 - KR); **C09K 19/56** (2013.01 - KR); **G02F 1/133723** (2013.01 - EP KR US);
C09K 2323/00 (2020.08 - EP US); **C09K 2323/02** (2020.08 - EP US); **C09K 2323/027** (2020.08 - EP US); **Y10T 428/31721** (2015.04 - EP US)

Citation (examination)

PATENT ABSTRACTS OF JAPAN

Cited by

EP1308771A4; US7090900B2; US7575788B2; WO03042752A1; US7718234B2; US8025939B2; US8758871B2; US9405152B2; US11520186B2

Designated contracting state (EPC)

DE FR GB NL

DOCDB simple family (publication)

EP 1037092 A1 20000920; EP 1037092 A4 20020313; EP 1037092 B1 20100721; CN 1124515 C 20031015; CN 1280679 A 20010117;
DE 69841779 D1 20100902; KR 100601067 B1 20060719; KR 20010032758 A 20010425; TW 460738 B 20011021; US 6294639 B1 20010925;
WO 9928783 A1 19990610

DOCDB simple family (application)

EP 98956017 A 19981201; CN 98811651 A 19981201; DE 69841779 T 19981201; JP 9805409 W 19981201; KR 20007006050 A 20000602;
TW 87119887 A 19981201; US 55462200 A 20000602